- 1. A chemical complex comprising:
- 5 i) a substituted or unsubstituted pyridine carboxy derivative according to formula 1

CLAIMS

Formula 1

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wherein R is selected from the group consisting of OH; OR'; NH₂; NHR'; NR'R", O Υ , and halogen, wherein R' and R" are independently selected from substituted and unsubstituted C₁-C₂₀ alkyl; and Y is a base addition salt of the free carboxylate; and

- 15 ii) an H2 histamine receptor antagonist.
 - 2. A chemical complex according to claim 1, wherein the pyridine carboxy derivative of formula I is niacinamide.
- 20 3. A chemical complex according to claim 1, wherein the H2 histamine receptor antagonist is selected from the group consisting of ranitidine, cimetidine, famotidine, nizatidine and derivatives thereof.
- 4. A chemical complex according to any one of claims 1 to 3, wherein the molar ratioor weight ratio between the pyridine amide and the H2 histamine receptor antagonist is in the range of 1:10000 to 10000:1.

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- 5. A chemical complex according to claim 4, further comprising a pharmaceutically acceptable carrier.
- 6. A pharmaceutical composition comprising:

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- i) a chemical complex as defined in any one of claims 1 to 3; and
- ii) a pharmaceutically acceptable carrier.
- 10 7. The use of a chemical complex as defined in claim 1, or a composition comprising said complex for:
 - (a) the preparation of a medicament or a dietary supplement for immunomodulation in a mammal:
- (b) for the preparation of a medicament or a dietary supplement for the15 suppression of hypersensitivity and/or inflammatory reaction in a mammal;
 - (c) for the preparation of a medicament for the treatment or prevention of atopic eczema, contact dermatitis, seborrhoeic eczema and/or psoriasis in a mammal;
- (d) for the preparation of a medicament for the treatment or prevention of20 IgE mediated allergic reaction and/or condition in a mammal;
 - (e) for the preparation of a medicament for the alleviation of pain in a mammal; or
 - (f) for the preparation of a medicament or a dietary supplement for the treatment or prevention of cancer in a mammal.

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8. The use according to claim 7, wherein the medicament or the dietary supplement is for the treatment or prevention of hypersensitivity skin disease in a mammal.

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9. The use according to claim 7, wherein the medicament or the dietary supplement is for the treatment or prevention of asthma, allergic rhinitis, and/or anaphylaxis in a mammal.

- 5 10. The use according to claim 7, wherein the medicament or the dietary supplement is for the treatment or prevention of autoimmune disease and/or chronic inflammatory disease in a mammal.
- 11. The use according to claim 7, wherein the medicament or the dietary supplement10 is for the treatment or prevention of Crohn's disease, ulcerative colitis, rheumatoid arthritis, gout or osteoarthritis in a mammal.
 - 12. The use according to claim 7, wherein the mammal is a human.
- 15 13. A method for immunomodulation in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said mammal.
- 14. A method for the suppression of hypersensitivity and/or inflammatory reaction in a
 20 mammal, which comprises administering chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said mammal.
- 15. A method for the treatment or prevention of hypersensitivity skin disease in a mammal, which comprises administering a chemical complex as defined in any one
 25 of claims 1 to 3 or a composition comprising said complex to said mammal.
- 16. A method for the treatment or prevention of atopic eczema, contact dermatitis, seborrhoeic eczema and/or psoriasis in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said mammal.

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17. A method for the treatment or prevention of IgE mediated allergic reaction and/or condition in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said 5 mammal.

- 18. A method for the treatment or prevention of asthma, allergic rhinitis, and/or anaphylaxis in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said mammal.
- 19. A method for the treatment or prevention of autoimmune disease and/or chronic inflammatory disease in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said
 15 complex to said mammal.
- 20. A method for the treatment or prevention of Crohn's disease, ulcerative colitis, rheumatoid arthritis, gout or osteoarthritis in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a
 20 composition comprising said complex to said mammal.
 - 21. A method for the alleviation of pain in a mammal, which comprises administering a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said mammal.

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- 22. A method for the treatment or prevention of cancer in a mammal, which comprises a chemical complex as defined in any one of claims 1 to 3 or a composition comprising said complex to said mammal.
- 30 23. A method according to claim 13, wherein the mammal is a human.